Inventor search

CRANE 09/363,748

pt 2 of 2

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=> d his

     (FILE 'HOME' ENTERED AT 17:39:49 ON 29 OCT 2003)

     FILE 'HCAPLUS' ENTERED AT 17:40:45 ON 29 OCT 2003
L1          781 S WURTMAN R?/AU
L2          377 S WATKINS C?/AU
L3         1149 S L1-2
L4            0 S L3 AND URIDINE PHOSPHATE
L5            4 S L3 AND URIDINE
              SELECT L5 1-4 RN

     FILE 'REGISTRY' ENTERED AT 17:42:36 ON 29 OCT 2003
L6           23 S E1-23
              SAVE TEMP L6 CRA748INV/A

     FILE 'HCAPLUS' ENTERED AT 17:43:54 ON 29 OCT 2003
L7            4 S L5 AND L6

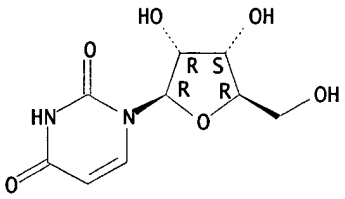
=> d ibib abs hitstr ind 1-4

L7   ANSWER 1 OF 4  HCAPLUS  COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER:         2003:473254  HCAPLUS
DOCUMENT NUMBER:          139:26686
TITLE:                    Compositions containing citicoline for treating memory
                          impairment
INVENTOR(S):              Wurtman, Richard J.; Teather, Lisa
PATENT ASSIGNEE(S):       USA
SOURCE:                   U.S. Pat. Appl. Publ., 15 pp.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

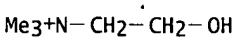
     PATENT NO.          KIND  DATE          APPLICATION NO.   DATE
     ----------------    ----  --------      ---------------   --------
     US 2003114415       A1    20030619      US 2002-73272     20020213
PRIORITY APPLN. INFO.:                    US 2001-339445P  P  20011214
AB   This invention relates to compns. and methods for preventing and treating
     cognitive dysfunction or memory impairment.  The compns. include an
     effective amt. of citicoline, or pharmaceutically-acceptable salts
     thereof, and 1 or more of the compds. selected from the group consisting
     of linoleic acid and linolenic acid.  Other compns. of this invention
     include an effective amt. of citicoline, or pharmaceutically-acceptable
     salt thereof, wherein the citicoline is metabolized to form at least one
     of cytidine, uridine, and choline.  Still other compns. of this
     invention include effective amts. of choline, cytidine, and/or
     uridine, or their pharmaceutically-acceptable salts.  This
     invention also encompasses methods for prepg. these compns.  The ability
     of citicoline to prevent or minimize the effects of memory impairment was
     demonstrated in a model of memory impairment in rats.  . Rats reared under
     restricted conditions that were not provided with a diet supplemented with
     citicoline, linoleic acid, and linolenic acid took longer to acquire a
     hidden platform than rats raised in enriched conditions or rats raised in
     restricted conditions that received a diet supplemented with citicoline,
     linoleic acid, linolenic acid.  The supplementation with citicoline,
     linoleic acid, and linolenic acid improves the memory deficit of rats
     raised under restricted conditions, to the point that they are able to
     perform the task with efficiency similar to that of rats raised under
     enriched conditions.
IT   58-96-8, Uridine 62-49-7, Choline
     65-46-3, Cytidine
     RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative)
        (compns. contg. citicoline for treating memory impairment)
RN   58-96-8  HCAPLUS
CN   Uridine (8CI, 9CI)  (CA INDEX NAME)
```

Appl's own work

Absolute stereochemistry. Rotation (+).

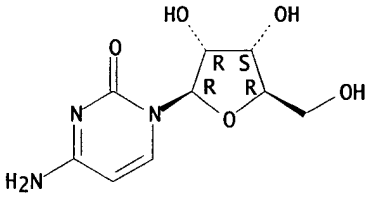


RN 62-49-7 HCAPLUS
CN Ethanaminium, 2-hydroxy-N,N,N-trimethyl- (9CI) (CA INDEX NAME)



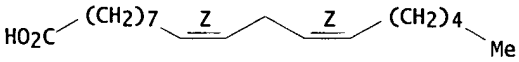
RN 65-46-3 HCAPLUS
CN Cytidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



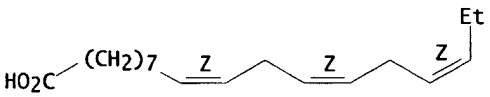
IT **60-33-3**, Linoleic acid, biological studies **463-40-1**, Linolenic acid **506-32-1**, Arachidonic acid **987-78-0**, Citicoline **25167-62-8**, Docosahexaenoic acid
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. contg. citicoline for treating memory impairment)
RN 60-33-3 HCAPLUS
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



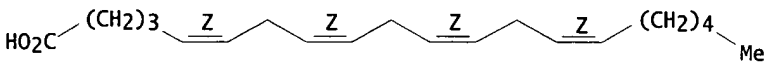
RN 463-40-1 HCAPLUS
CN 9,12,15-Octadecatrienoic acid, (9Z,12Z,15Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



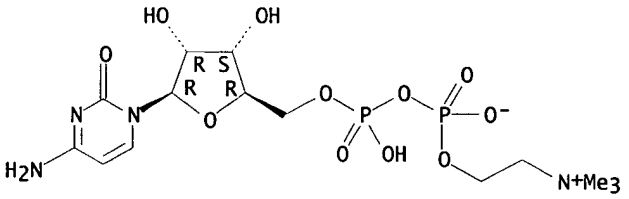
RN 506-32-1 HCAPLUS
CN 5,8,11,14-Eicosatetraenoic acid, (5Z,8Z,11Z,14Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 987-78-0 HCAPLUS
CN Cytidine 5'-(trihydrogen diphosphate), P'-[2-(trimethylammonio)ethyl] ester, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 25167-62-8 HCAPLUS
CN Docosahexaenoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 112-85-6
CMF C22 H44 O2

IC ICM A61K031-7072
ICS A61K031-202; A61K031-513
NCL 514051000; 514560000
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1
ST citicoline memory impairment prevention; fatty acid citicoline memory impairment prevention
IT Mental disorder
(cognitive; compns. contg. citicoline for treating memory impairment)
IT Fatty acids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. contg. citicoline for treating memory impairment)
IT Cognition
(disorder; compns. contg. citicoline for treating memory impairment)
IT Memory, biological
(retention defect; compns. contg. citicoline for treating memory impairment)
IT **58-96-8**, **Uridine 62-49-7**, Choline
65-46-3, Cytidine
RL: FMU (Formation, unclassified); FORM (Formation, nonpreparative)
(compns. contg. citicoline for treating memory impairment)
IT **60-33-3**, Linoleic acid, biological studies **463-40-1**, Linolenic acid **506-32-1**, Arachidonic acid **987-78-0**, Citicoline **25167-62-8**, Docosahexaenoic acid
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. contg. citicoline for treating memory impairment)

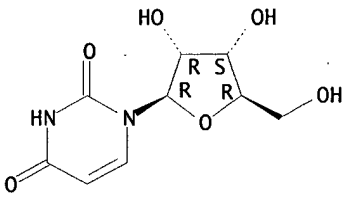
L7 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:293993 HCAPLUS
DOCUMENT NUMBER: 139:211263
TITLE: Stimulation of CDP-choline synthesis by **uridine** or cytidine in PC12 rat pheochromocytoma cells
AUTHOR(S): Richardson, U. Ingrid; **Watkins, Carol J.**;

Pierre, Celine; Ulus, Ismael H.; **Wurtman, Richard J.**
CORPORATE SOURCE: Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA
SOURCE: Brain Research (2003), 971(2), 161-167
CODEN: BRREAP; ISSN: 0006-8993
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Oral administration of CDP-choline to rats raises plasma and brain cytidine levels and increases brain levels of phosphatidylcholine (PC). In contrast, in humans oral CDP-choline increases plasma levels of **uridine**. To det. whether **uridine** can also enhance PC synthesis, we developed an assay for CDP-choline, an immediate and rate-limiting precursor in PC synthesis, and measured this intermediate in clonal PC12 rat pheochromocytoma cells incubated with various concns. of **uridine** or cytidine. Addn. of **uridine** (50-100 .mu.M) to the incubation medium caused significant elevations in UTP, CT, USAP and CDP-choline levels in PC12 cells. **Uridine** had no effect on the synthesis of diacylglycerol (DAG) or the activity of the phosphotransferase which catalyzes the synthesis of PC from DAG and CDP-choline. Hence **uridine** treatment was unlikely to inhibit the conversion of endogenous CDP-choline to PC. These results suggest the possibility that **uridine** may also enhance PC synthesis in intact brain.

IT **9026-13-5**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(in stimulation of CDP-choline synthesis by **uridine** or cytidine in PC12 rat pheochromocytoma cells)
RN 9026-13-5 HCAPLUS
CN Cholinephosphotransferase, diacylglycerol (9CI) (CA INDEX NAME)

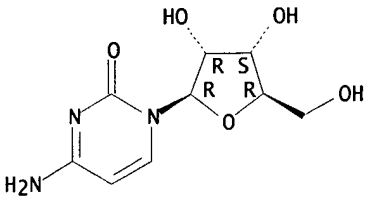
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **58-96-8**, **Uridine 65-46-3**, Cytidine
987-78-0, CDP-choline
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(stimulation of CDP-choline synthesis by **uridine** or cytidine in PC12 rat pheochromocytoma cells)
RN 58-96-8 HCAPLUS
CN Uridine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



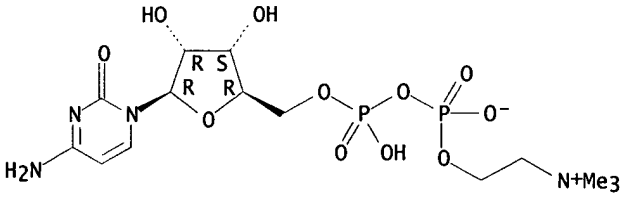
RN 65-46-3 HCAPLUS
CN Cytidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



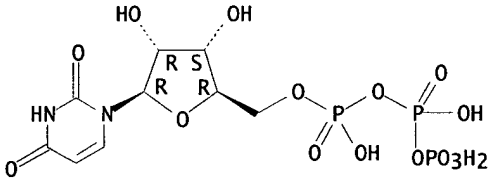
RN 987-78-0 HCAPLUS
CN Cytidine 5'-(trihydrogen diphosphate), P'-[2-(trimethylammonio)ethyl] ester, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



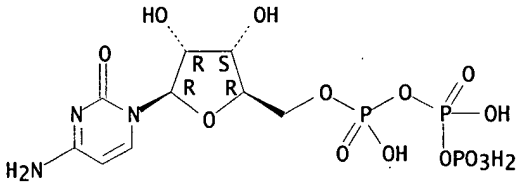
IT **63-39-8**, UTP **65-47-4**, CTP
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(stimulation of CDP-choline synthesis by **uridine** or cytidine in PC12 rat pheochromocytoma cells in relation to)
RN 63-39-8 HCAPLUS
CN Uridine 5'-(tetrahydrogen triphosphate) (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 65-47-4 HCAPLUS
CN Cytidine 5'-(tetrahydrogen triphosphate) (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.

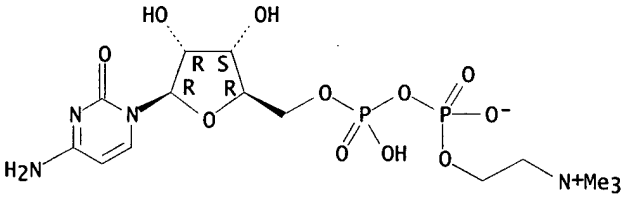


CC 13-2 (Mammalian Biochemistry)
ST CDP choline formation **uridine** cytidine PC12 cell
IT Animal cell line
(PC12; stimulation of CDP-choline synthesis by **uridine** or cytidine in PC12 rat pheochromocytoma cells in relation to)
IT Human
(stimulation of CDP-choline synthesis by **uridine** or cytidine in PC12 rat pheochromocytoma cells in relation to)

IT Phosphatidylcholines, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(stimulation of CDP-choline synthesis by **uridine** or cytidine in PC12 rat pheochromocytoma cells in relation to)
IT **9026-13-5**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(in stimulation of CDP-choline synthesis by **uridine** or cytidine in PC12 rat pheochromocytoma cells)
IT **58-96-8**, **Uridine 65-46-3**, Cytidine
987-78-0, CDP-choline
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(stimulation of CDP-choline synthesis by **uridine** or cytidine in PC12 rat pheochromocytoma cells)
IT **63-39-8**, UTP **65-47-4**, CTP
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(stimulation of CDP-choline synthesis by **uridine** or cytidine in PC12 rat pheochromocytoma cells in relation to)
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

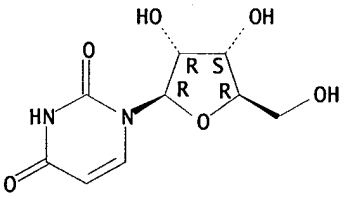
L7 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2000:621997 HCAPLUS
DOCUMENT NUMBER: 133:329102
TITLE: Effect of oral CDP-choline on plasma choline and **uridine** levels in humans
AUTHOR(S): **Wurtman, R. J.**; Regan, M.; Ulus, I.; Yu, L.
CORPORATE SOURCE: Department of Brain & Cognitive Sciences, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA
SOURCE: Biochemical Pharmacology (2000), 60(7), 989-992
CODEN: BCPCA6; ISSN: 0006-2952
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Twelve mildly hypertensive but otherwise normal fasting subjects received each of four treatments in random order: CDP-choline (citicoline; 500, 2000, and 4000 mg) or a placebo orally at 8:00 a.m. on four different treatment days. Eleven plasma samples from each subject, obtained just prior to treatment (8:00 a.m.) and 1-12 h thereafter, were assayed for choline, cytidine, and **uridine**. Fasting terminated at noon with consumption of a light lunch that contained about 100 mg choline. Plasma choline exhibited dose-related increases in peak values and areas under the curves (AUCs), remaining significantly elevated, after each of the three doses, for 5, 8, and 10 h, resp. Plasma **uridine** was elevated significantly for 5-6 h after all three doses, increasing by as much as 70-90% after the 500 mg dose, and by 100-120% after the 2000 mg dose. No further increase was noted when the dose was raised from 2000 to 4000 mg. Plasma cytidine was not reliably detectable, since it was less than twice blank, or less than 100 nM, at all of the doses. **Uridine** is known to enter the brain and to be converted to UTP; moreover, we found that **uridine** was converted directly to CTP in neuron-derived PC-12 cells. Hence, it seems likely that the circulating substrates through which oral citicoline increases membrane phosphatide synthesis in the brains of humans involve **uridine** and choline, and not cytidine and choline as in rats.
IT **987-78-0**, CDP-choline
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(effect of oral CDP-choline on plasma choline and **uridine** levels in humans)
RN 987-78-0 HCAPLUS
CN Cytidine 5'-(trihydrogen diphosphate), P'-[2-(trimethylammonio)ethyl] ester, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

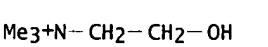


IT **58-96-8**, **Uridine 62-49-7**, Choline
65-46-3, Cytidine
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PROC (Process)
(effect of oral CDP-choline on plasma choline and **uridine** levels in humans)
RN 58-96-8 HCAPLUS
CN Uridine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

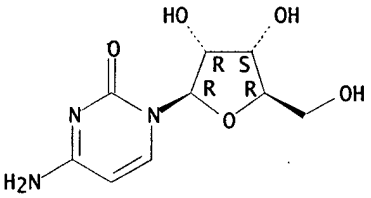


RN 62-49-7 HCAPLUS
CN Ethanaminium, 2-hydroxy-N,N,N-trimethyl- (9CI) (CA INDEX NAME)



RN 65-46-3 HCAPLUS
CN Cytidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 1-2 (Pharmacology)
ST citicoline metab choline **uridine** brain phosphatidylcholine
IT Brain
Species differences
(effect of oral CDP-choline on plasma choline and **uridine** levels in humans)
IT Phosphatidylcholines, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(effect of oral CDP-choline on plasma choline and **uridine** levels in humans)
IT **987-78-0**, CDP-choline
RL: BAC (Biological activity or effector, except adverse); BPR (Biological

process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(effect of oral CDP-choline on plasma choline and **uridine** levels in humans)

IT **58-96-8**, **Uridine 62-49-7**, Choline
65-46-3, Cytidine
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PROC (Process)
(effect of oral CDP-choline on plasma choline and **uridine** levels in humans)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2000:98343 HCAPLUS
DOCUMENT NUMBER: 132:132349
TITLE: Methods using **uridine** or a **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurological diseases
INVENTOR(S): **Watkins, Carol**; **Wurtman, Richard J.**
PATENT ASSIGNEE(S): Massachusetts Institute of Technology, USA
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

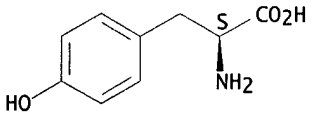
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000006174	A1	20000210	WO 1999-US17235	19990730
W: CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2339008	AA	20000210	CA 1999-2339008	19990730
EP 1140104	A1	20011010	EP 1999-937631	19990730
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 2002028787	A1	20020307	US 1999-363748	19990730
JP 2003517437	T2	20030527	JP 2000-562028	19990730
PRIORITY APPLN. INFO.:			US 1998-95002P P	19980731
			WO 1999-US17235 W	19990730

AB Methods of treating certain neurol. diseases using exogenous **uridine** or a **uridine** source alone as a precursor of endogenous cytidine, particularly in the human brain, are disclosed. Methods are also disclosed in which exogenous **uridine** or a **uridine** source is combined either with drugs increasing **uridine** availability or with compds. that serve as a source of choline in phospholipid synthesis.

IT **60-18-4**, Tyrosine, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(cytidine-tyrosine sepn. in HPLC; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)

RN 60-18-4 HCAPLUS
CN L-Tyrosine (9CI) (CA INDEX NAME)

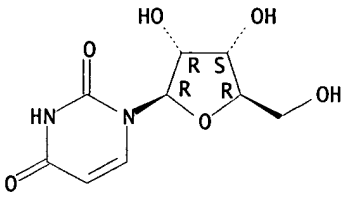
Absolute stereochemistry. Rotation (-).



IT **9030-22-2, Uridine** phosphorylase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
RN 9030-22-2 HCAPLUS
CN Phosphorylase, uridine (9CI) (CA INDEX NAME)

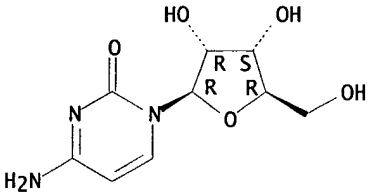
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **58-96-8, Uridine**
RL: ANT (Analyte); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
RN 58-96-8 HCAPLUS
CN Uridine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

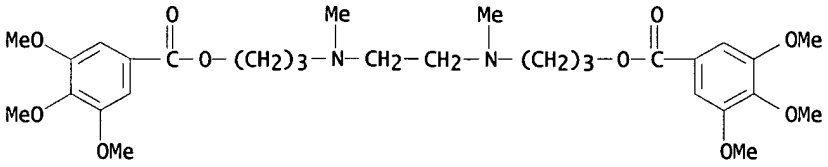


IT **65-46-3**, Cytidine
RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(**uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
RN 65-46-3 HCAPLUS
CN Cytidine (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **54-03-5**, Hexobendine **62-49-7**, Choline **67-48-1**, Choline chloride **87-67-2**, Choline bitartrate, biological studies **563-24-6**, Glycerophosphatidylcholine **563-24-6D**, Glycerophosphocholine, acyl derivs. **987-78-0**, CDP-choline **5909-45-5D**, derivs. **5983-09-5**, 2',3'-Dideoxyuridine **23464-76-8**, Choline stearate **26287-69-4**, L-**Uridine 35898-87-4**, Dilazep **153547-98-9**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
RN 54-03-5 HCAPLUS
CN Benzoic acid, 3,4,5-trimethoxy-, 1,2-ethanediylbis[(methylimino)-3,1-propanediyl] ester (9CI) (CA INDEX NAME)



RN 62-49-7 HCAPLUS
CN Ethanaminium, 2-hydroxy-N,N,N-trimethyl- (9CI) (CA INDEX NAME)

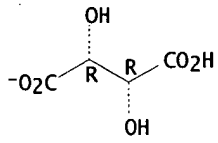
RN 67-48-1 HCAPLUS
CN Ethanaminium, 2-hydroxy-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

RN 87-67-2 HCAPLUS
CN Ethanaminium, 2-hydroxy-N,N,N-trimethyl-, salt with (2R,3R)-2,3-dihydroxybutanedioic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 49681-69-8
CMF C4 H5 O6

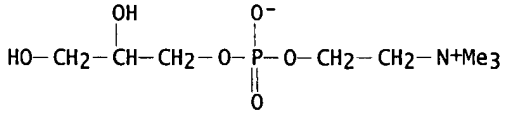
Absolute stereochemistry.



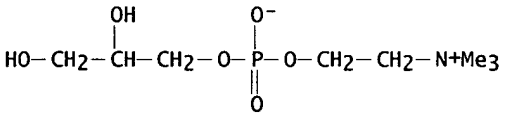
CM 2

CRN 62-49-7
CMF C5 H14 N O

RN 563-24-6 HCAPLUS
CN Ethanaminium, 2-[[(2,3-dihydroxypropoxy)hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

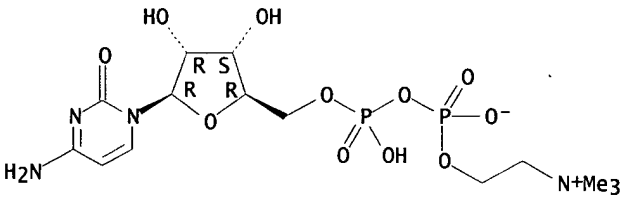


RN 563-24-6 HCAPLUS
CN Ethanaminium, 2-[[(2,3-dihydroxypropoxy)hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (9CI) (CA INDEX NAME)

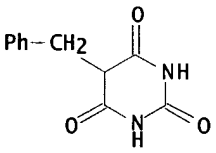


RN 987-78-0 HCAPLUS
CN Cytidine 5'-(trihydrogen diphosphate), P'-[2-(trimethylammonio)ethyl] ester, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

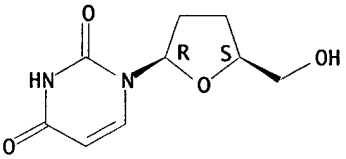


RN 5909-45-5 HCAPLUS
CN 2,4,6(1H,3H,5H)-Pyrimidinetrione, 5-(phenylmethyl)- (9CI) (CA INDEX NAME)

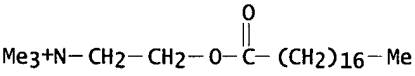


RN 5983-09-5 HCAPLUS
CN Uridine, 2',3'-dideoxy- (7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

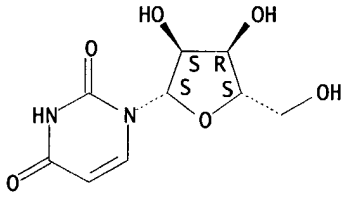


RN 23464-76-8 HCAPLUS
CN Ethanaminium, N,N,N-trimethyl-2-[(1-oxooctadecyl)oxy]- (9CI) (CA INDEX NAME)



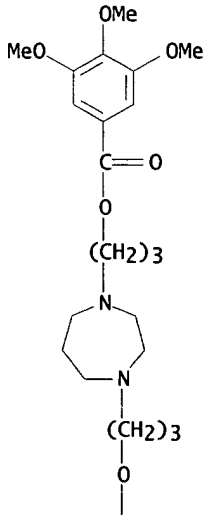
RN 26287-69-4 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-.beta.-L-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

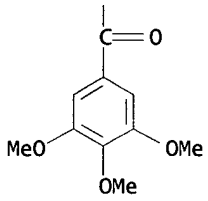


RN 35898-87-4 HCAPLUS
CN Benzoic acid, 3,4,5-trimethoxy-, (tetrahydro-1H-1,4-diazepine-1,4(5H)-diyl)di-3,1-propanediyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

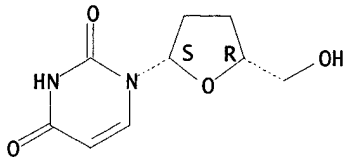


PAGE 2-A



RN 153547-98-9 HCAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2S,5R)-tetrahydro-5-(hydroxymethyl)-2-furanyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IC ICM A61K031-55
ICS A61K031-70; A61K031-235; A61K031-515; A61K031-685
CC 1-11 (Pharmacology)
ST **uridine** cytidine precursor neurol disease treatment; choline source **uridine** neurol disease treatment
IT AIDS (disease)
AIDS (disease)
(AIDS dementia complex; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Mental disorder
Mental disorder
(AIDS dementia; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Nervous system
(Friedreich's ataxia; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Nervous system
(Huntington's chorea; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Mental disorder
(Pick's disease; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Mental disorder
(affective, seasonal; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Brain
(aging, memory decline assocd. with; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Mental activity
(alertness; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Nervous system
(ataxia; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Mental disorder
(attention deficit disorder; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Aging, animal
(brain, memory decline assocd. with; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Hypoxia, animal
(cerebrovascular disease from; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Brain, disease
(cerebrovascular, hypoxia-caused; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating

cytidine-dependent human neurol. diseases)
IT Mental activity
(concn. and focus; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT HPLC
(cytidine-tyrosine sepn. in; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Mental disorder
(dementia; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Mental disorder
(depression, neurotic; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Mental disorder
(diffuse Lewy body disease; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Nervous system
(disease; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Behavior
Emotion
(disorder; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Mental disorder
(dyslexia; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Spinal cord
(injury, behavioral or neurol. syndrome after anoxia or; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Mental disorder
(mania; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Mental disorder
(manic bipolar disorder; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Anxiety
(panic; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Nervous system
(peripheral, disease; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Poliomyelitis
(post-polio syndrome; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Brain, disease
(stroke; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Nervous system
(tardive dyskinesia; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)
IT Brain, disease

(trauma, behavioral or neurol. syndrome after; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)

IT Anti-ischemic agents
Antidepressants
Antiparkinsonian agents
Antipsychotics
Anxiolytics
Blood analysis
Cognition enhancers
Movement disorders
Muscular dystrophy
Myasthenia gravis
Nervous system agents
Neuromuscular diseases
Schizophrenia
Stress, animal
(**uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)

IT Fatty acids, biological studies
Lecithins
Lysophosphatidylcholines
Sphingomyelins
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)

IT Biological transport
Kidney
(**uridine** renal transport competitors; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)

IT **60-18-4**, Tyrosine, analysis
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(cytidine-tyrosine sepn. in HPLC; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)

IT **9030-22-2**, **Uridine** phosphorylase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; **uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)

IT **58-96-8**, **Uridine**
RL: ANT (Analyte); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)

IT **65-46-3**, Cytidine
RL: ANT (Analyte); BPR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(**uridine** or **uridine** source for increasing cytidine levels in vivo and treating cytidine-dependent human neurol. diseases)

IT **54-03-5**, Hexobendine **62-49-7**, Choline **67-48-1**, Choline chloride **87-67-2**, Choline bitartrate, biological studies **563-24-6**, Glycerophosphatidylcholine **563-24-6D**, Glycerophosphocholine, acyl derivs. **987-78-0**, CDP-choline **5909-45-5D**, derivs. **5909-45-5D**, derivs. **5983-09-5**, 2',3'-Dideoxyuridine **23464-76-8**, Choline stearate **26287-69-4**, L-**Uridine** **35898-87-4**, Dilazep **153547-98-9**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**uridine** or **uridine** source for increasing cytidine

levels in vivo and treating cytidine-dependent human neurol. diseases)
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT